

IN THE CLAIMS:

C<sup>1</sup>

1 6. (Amended) The isolated polynucleotide molecule of claim 1, which  
2 further incorporates a heterologous sequence from RSV.

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1 8. (Amended) The isolated polynucleotide molecule of claim 1, which  
2 further incorporates a heterologous sequence from measles virus.

C<sup>3</sup>

1 11. (Amended) An isolated polynucleotide molecule comprising an  
2 operably linked transcriptional promoter, a polynucleotide sequence encoding a human or  
3 bovine PIV genome or antigenome, and a transcriptional terminator, wherein said  
4 polynucleotide sequence encoding said PIV genome or antigenome is modified by a nucleotide  
5 insertion, rearrangement, deletion or substitution.

C<sup>4</sup>

1 16. (Amended) The isolated polynucleotide molecule of claim [15] 11,  
2 wherein said polynucleotide sequence encoding said PIV genome or antigenome encodes at  
3 least one attenuating amino acid substitution in the polymerase L protein.

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1 19. (Amended) The isolated polynucleotide molecule of claim [28] 18,  
2 wherein the amino acid substitution in the N protein occurs at a position corresponding to  
3 residues Val96 or Ser389 of JS cp45.

C<sup>6</sup>

1 48. (Amended) A cell or cell-free composition including an expression  
2 vector which comprises an isolated polynucleotide molecule encoding a human or bovine PIV  
3 genome or antigenome and an expression vector which comprises one or more isolated  
4 polynucleotide molecules that encode(s) N, P and L proteins of PIV, whereby expression of  
5 said PIV genome or antigenome and N, P, and L proteins yields an infectious PIV particle.

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1 52. (Amended) A method for producing an infectious PIV particle from one  
2 or more isolated polynucleotide molecules encoding said PIV, comprising:  
3 coexpressing in a cell or cell-free system an expression vector which comprises  
4 a polynucleotide molecule encoding a human or bovine PIV genome or antigenome and an

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5 expression vector which comprises one or more polynucleotide molecules encoding N, P and L  
6 proteins, thereby producing an infectious PIV particle.

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1 59. (Amended) The method of claim 52, wherein the polynucleotide  
2 molecule encoding the PIV genome or antigenome is a human[, bovine or murine] PIV  
3 sequence.

C<sup>9</sup>  
1 68. (Amended) The method of claim [67] 52, wherein the polynucleotide  
2 molecule encoding the PIV genome or antigenome incorporates [the] an amino acid  
3 substitution in the polymerase L protein [occurs] at a position corresponding to Tyr942,  
4 Leu992, or Thr1558 of JS cp45.

Sub. E1  
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1 91. (Amended) An isolated infectious PIV particle which comprises a  
2 recombinant human or bovine PIV genome or antigenome, a N protein, a P protein, and a L  
3 protein.

C<sup>11</sup>  
1 110. (Amended) The isolated infectious PIV particle of claim [129] 97,  
2 wherein said chimeric genome or antigenome incorporates multiple mutations each specifying  
3 a phenotype selected from attenuation, temperature-sensitivity, cold-adaptation, small plaque  
4 size, or host range restriction.

C<sup>12</sup>  
1 132. (Twice Amended) The isolated polynucleotide molecule of claim 129,  
2 wherein the isolated polynucleotide encoding the chimeric PIV genome or antigenome further  
3 incorporates [a full complement of attenuating mutations present in JS cp45, said full  
4 complement of] mutations comprising i) substitutions specifying a replacement of His for  
5 Tyr942, Phe for Leu992, and Ile for Thr1558 in the polymerase L protein; ii) substitutions  
6 specifying a replacement of Ala for Val96 and Ala for Ser389 in the N protein; iii) a  
7 substitution specifying a replacement of Thre for Ile96 in the C protein [(v)] iv) mutations in a  
8 3' leader sequence comprising a T to C change at a position corresponding to nucleotide 23 of  
9 JS cp45, a C to T change at nucleotide 24, a G to T change at nucleotide 28, and a T to A

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change at nucleotide 45 of JS cp45; and [vi)] v) a mutation in an N gene start sequence comprising an A to T change at a position corresponding to nucleotide 62 of JS cp45.

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134. (Twice Amended) The isolated polynucleotide molecule of claim 133, wherein said chimeric genome or antigenome incorporates [a full complement of attenuating mutations present in JS cp45, said full complement of] mutations comprising i) substitutions specifying a replacement of His for Tyr942, Phe for Leu992, and Ile for Thr1558 in the polymerase L protein; ii) substitutions specifying a replacement of Ala for Val96 and Ala for Ser389 in the N protein; iii) a substitution specifying a replacement of Thre for Ile96 in the C protein [(v)] iv) mutations in a 3' leader sequence comprising a T to C change at a position corresponding to nucleotide 23 of JS cp45, a C to T change at nucleotide 24, a G to T change at nucleotide 28, and a T to A change at nucleotide 45 of JS cp45; and [vi)] v) a mutation in an N gene start sequence comprising an A to T change at a position corresponding to nucleotide 62 of JS cp45.

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136. (Twice Amended) The method of claim 135, wherein said genome or antigenome incorporates [a full complement of attenuating mutations present in JS cp45, said full complement of] mutations comprising i) substitutions specifying a replacement of His for Tyr942, Phe for Leu992, and Ile for Thr1558 in the polymerase L protein; ii) substitutions specifying a replacement of Ala for Val96 and Ala for Ser389 in the N protein; iii) a substitution specifying a replacement of Thre for Ile96 in the C protein [(v)] iv) mutations in a 3' leader sequence comprising a T to C change at a position corresponding to nucleotide 23 of JS cp45, a C to T change at nucleotide 24, a G to T change at nucleotide 28, and a T to A change at nucleotide 45 of JS cp45; and [vi)] v) a mutation in an N gene start sequence comprising an A to T change at a position corresponding to nucleotide 62 of JS cp45.

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140. (Twice Amended) The isolated infectious PIV particle of claim 137, wherein the isolated polynucleotide encoding the chimeric PIV genome or antigenome further incorporates [a full complement of attenuating mutations present in JS cp45, said full complement of] mutations comprising i) substitutions specifying a replacement of His for Tyr942, Phe for Leu992, and Ile for Thr1558 in the polymerase L protein; ii) substitutions

6 specifying a replacement of Ala for Val96 and Ala for Ser389 in the N protein; iii) a  
7 substitution specifying a replacement of Thre for Ile96 in the C protein [(v)] iv) mutations in a  
8 3' leader sequence comprising a T to C change at a position corresponding to nucleotide 23 of  
9 JS cp45, a C to T change at nucleotide 24, a G to T change at nucleotide 28, and a T to A  
10 change at nucleotide 45 of JS cp45; and [(vi)] v) a mutation in an N gene start sequence  
11 comprising an A to T change at a position corresponding to nucleotide 62 of JS cp45.

C<sup>15</sup>  
Cord. 1 141. (Twice Amended) The isolated infectious PIV particle of claim 111,  
2 wherein said chimeric PIV genome or antigenome further incorporates [the full complement of  
3 attenuating mutations present in JS cp45, said full complement of] mutations comprising i)  
4 substitutions specifying a replacement of His for Tyr942, Phe for Leu992, and Ile for Thr1558  
5 in the polymerase L protein; ii) substitutions specifying a replacement of Ala for Val96 and  
6 Ala for Ser389 in the N protein; iii) a substitution specifying a replacement of Thre for Ile96 in  
7 the C protein [(v)] iv) mutations in a 3' leader sequence comprising a T to C change at a  
8 position corresponding to nucleotide 23 of JS cp45, a C to T change at nucleotide 24, a G to T  
9 change at nucleotide 28, and a T to A change at nucleotide 45 of JS cp45; and [(vi)] v) a  
10 mutation in an N gene start sequence comprising an A to T change at a position corresponding  
11 to nucleotide 62 of JS cp45.

C<sup>16</sup> 1 143. (Twice Amended) The immunogenic composition of claim 142,  
2 wherein said recombinant PIV genome or antigenome further incorporates [a full complement  
3 of attenuating mutations present in JS cp45, said full complement of] mutations comprising i)  
4 substitutions specifying a replacement of His for Tyr942, Phe for Leu992, and Ile for Thr1558  
5 in the polymerase L protein; ii) substitutions specifying a replacement of Ala for Val96 and  
6 Ala for Ser389 in the N protein; iii) a substitution specifying a replacement of Thre for Ile96 in  
7 the C protein [(v)] iv) mutations in a 3' leader sequence comprising a T to C change at a  
8 position corresponding to nucleotide 23 of JS cp45, a C to T change at nucleotide 24, a G to T  
9 change at nucleotide 28, and a T to A change at nucleotide 45 of JS cp45; and [(vi)] v) a  
10 mutation in an N gene start sequence comprising an A to T change at a position corresponding  
11 to nucleotide 62 of JS cp45.